

## REMARKS

Reconsideration of the instant application is respectfully requested. The present amendment is submitted along with a Request for Continued Examination (RCE), and is responsive to the Final Office Action of August 22, 2007, in which claims 1-19 are presently pending. A courtesy copy of the claims in their present form is included above.

Of those, claims 1 and 2 have now been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,542,559 to Kawakami, et al., in view of U.S. Patent 6,974,709 to Breitschwerdt, et al. Claims 3 and 4 are rejected under 35 U.S.C. §103(a) as being unpatentable over Kawakami, in view of Breitschwerdt, and further in view of U.S. Patent 5,665,166 to Deguchi, et al. Claim 5 is rejected under 35 U.S.C. §103(a) as being unpatentable over Kawakami, in view of Breitschwerdt and Deguchi, and further in view of U.S. Patent 7,033,443 to Kellerman, et al. (Kellerman '443).

In addition, Claims 6 and 7 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kawakami, in view of Breitschwerdt, and further in view of Kellerman '443. Claims 8-10 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kawakami, in view of Breitschwerdt, and further in view of Kellerman '443 and Deguchi. Claims 11-13 and 19 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kawakami, in view of Breitschwerdt and Kellerman '443 and further in view of U.S. Patent Publication 2004/0083975 by Tong, et al. Further, claims 14-17 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kellerman '443, in view of Breitschwerdt, and further in view of Kawakami. Finally, claim 18 is rejected under 35 U.S.C. §103(a) as being unpatentable over Kellerman, in view of Breitschwerdt and Kawakami, and further view of U.S. Patent 6,500,686 to Katata, et al. For the following reasons, however, it is respectfully submitted that the application is now in condition for allowance.

In a response dated September 6, 2007, the Applicants argued that a combination of the Breitschwerdt and Kawakami references by one skilled in the art would not result in vacuum assisted chucking being implemented prior to the wafer processing operation for which the wafer is chucked. Rather, a proper combination of such teachings would result in vacuum evacuation of the process chamber itself prior to a processing operation, which not the same as evacuating a backside gas supply line (since this would not accomplish the stated purpose of removing of remnants of gases and air in the process chamber).

However, in an Advisory Action mailed on October 9, 2007, the Examiner has indicated that the previous response did not place the application in condition for allowance for the reason that “it is clear here that the bidirectional conduit by sucking the gas assist the electrostatic chuck effect in the supporting of the wafer prior to the etching.”

On the one hand, the Examiner notes that in Kawakami, the electrostatic chuck is turned off after the completion of the etching, during which time the backside gas is simultaneously sucked through the gas supply conduit so as to prevent the wafer from being blown off by pressure of the backside gas remaining within the supply conduit. Yet the Examiner appears to take the further position that Kawakami’s bidirectional conduit assists the electrostatic chuck effect in supporting the wafer prior to etching (notwithstanding the fact that when Kawakami’s backside gas supply conduit is evacuated, the chuck is turned off).

Accordingly, independent claims 1, 6 and 14 have been amended as set forth above to more particularly point out that, during the claimed vacuum assisted chucking, an electrostatic chucking voltage remains applied to the electrostatic chucking pedestal. Support for this amendment is found at least in Figure 5 (see blocks 502, 516) of the drawings. In contrast, the Kawakami reference does not teach or suggest the use of vacuum assisted chucking prior to wafer processing operation, wherein during the


claimed vacuum assisted chucking, the ESC voltage remains applied to the chucking pedestal.

Accordingly, because neither the combination of Breitschwerdt and Kawakami nor the other references of record teach or suggest that the vacuum assisted chucking is implemented prior to the wafer processing operation for which the wafer is chucked, during which vacuum assisted chucking an electrostatic chucking voltage remains applied to the electrostatic chucking pedestal, it is respectfully submitted that each of the outstanding §103 rejections have now been overcome.

For the above stated reasons, it is respectfully submitted that the present application is now in condition for allowance. No new matter has been entered and no additional fees are believed to be required. However, if any fees are due with respect to this Amendment, please charge them to Deposit Account No. 09-0458 maintained by Applicants' attorneys.

Respectfully submitted,  
DAVID J. BAIN, ET AL.

CANTOR COLBURN LLP  
Applicants' Attorneys

By   
Sean F. Sullivan  
Registration No. 38,328  
Customer No. 29371

Date: October 30, 2007  
Address: 55 Griffin Road South, Bloomfield, CT 06002  
Telephone: (860) 286-2929